

IN THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

Listing of Claims

1. (Currently Amended) A method of operating a continuous casting and rolling plant with a computing unit, including a plurality of slabs belonging to different production orders within sequences on the continuous casting and rolling plant, comprising:

D | determining a solution indicating the order of the slabs belonging to the production orders within the sequences with the computing unit by a genetic algorithm; and

| evaluating the solution by an event-oriented evaluation, wherein the event-oriented evaluation is carried out by simulating the operation of the continuous casting and rolling plant; and

| controlling the continuous casting and rolling plant by the computing unit in accordance with the ~~order determined~~solution.

2. (Previously Presented) The method as claimed in claim 1, wherein at least one of a selection, a recombination and a mutation is carried out by the genetic algorithm.

3. (Canceled)

4. (Currently Amended) The method as claimed in claim 3~~1~~, wherein ~~solutions are~~ the solution is evaluated according to quality by the event-oriented evaluation.

5. (Previously Presented) The method as claimed in claim 1, wherein a starting solution, as a starting point, is determined by the computing unit.

6. (Previously Presented) A continuous casting and rolling plant with a computing unit and means for carrying out the method as claimed in claim 1, wherein a plurality of slabs which belong to different production orders are produced within sequences on the continuous casting and rolling plant, wherein the computing unit contains a genetic algorithm for determining the order of the slabs belonging to the production orders within the sequences.

7. (Canceled)

8. (Previously Presented) The method of claim 1, wherein the continuous casting and rolling plant is a thin-slab continuous casting and rolling plant.

9. (Canceled)

10. (Currently Amended) The method as claimed in claim 9~~2~~, wherein ~~solutions are~~the solution is evaluated according to quality by the event-oriented evaluation.

11. (Previously Presented) The method as claimed claim 2, wherein a starting solution, as a starting point, is determined by the computing unit.

12. (Canceled)

13. (Previously Presented) The method as claimed claim 4, wherein a starting solution, as a starting point, is determined by the computing unit.

14. (Canceled)

15. (Previously Presented) The method as claimed claim 10, wherein a starting solution, as a starting point, is determined by the computing unit.

DI 16. (Previously Presented) A continuous casting and rolling plant with a computing unit and means for carrying out the method as claimed in claim 2, wherein a plurality of slabs which belong to different production orders are produced within sequences on the continuous casting and rolling plant, wherein the computing unit contains a genetic algorithm for determining the order of the slabs belonging to the production orders within the sequences.

17. (Canceled)

18. (Previously Presented) A continuous casting and rolling plant with a computing unit and means for carrying out the method as claimed in claim 4, wherein a plurality of slabs which belong to different production orders are produced within sequences on the continuous casting and rolling plant, wherein the computing unit contains a genetic algorithm for determining the order of the slabs belonging to the production orders within the sequences.

19. (Previously Presented) A continuous casting and rolling plant with a computing unit and means for carrying out the method as claimed in claim 5,

wherein a plurality of slabs which belong to different production orders are produced within sequences on the continuous casting and rolling plant, wherein the computing unit contains a genetic algorithm for determining the order of the slabs belonging to the production orders within the sequences.

DI 20. (Previously Presented) A method of operating a plant, comprising:
using a genetic algorithm to determine a solution to operate a continuous casting and rolling plant in a substantially optimum manner; and
evaluating the solution by an event-oriented evaluation, wherein the event-oriented evaluation is carried out by simulating the operation of the continuous casting and rolling plant.

21. (Previously Presented) The method according to claim 1, further comprising determining an initial solution for determining an iteration process for operating the continuous casting and rolling plant.

22. (Previously Presented) The method according to claim 1, further comprising determining a solution space defining data usable for operating the continuous casting and rolling plant.

23. (Currently Amended) The method according to claim 322, wherein ~~determining the solution space includes defining the~~ data ~~pertaining~~pertains to at least one of delivery dates, quantities to be delivered and order-related restrictions.

24-25. (Canceled)

26. (Currently Amended) The method according to claim 61, ~~further comprising evaluating wherein~~ technical characteristics of the continuous casting and rolling plant are evaluated during the ~~simulation~~ ~~operations~~simulating step, the technical characteristics including at least one of a number of casting strands, a number and type of continuous caster, a number of slab strands passed through a furnace, and a number and type of rolls in a mill.